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10/586,131	07/17/2006	Masao Saito	0033-1085PUS1	3838

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BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

HICKS, CHARLES V

ART UNIT	PAPER NUMBER
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2629

NOTIFICATION DATE	DELIVERY MODE
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06/16/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/586,131	Applicant(s) SAITO, MASAO	
	Examiner CHARLES HICKS	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/17/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1 - 11 are cancelled. Claims 12 – 24 are currently pending.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 23 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A program product is neither a computer component nor a statutory process, as it is not an “act” or “acts” being performed nor does it define any structural and functional interrelationships between the computer program and other elements of a computer, which permit the computer program’s functionality to be realized.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. Claims 12-15, 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ghercioiu et al. (US 2004/0010734) in view of Hasako et al. (US 2003/0093715).

In reference to claim 12, Ghercioiu teaches a display apparatus comprising (Ghercioiu, pg. 1, par. 10):

storage means for storing a control program having a plurality of instructions and each symbol data for displaying a symbol related to each of said plurality of instructions (Ghercioiu, pg. 14, par. 233);

control means for controlling control target equipment electrically connected to said display apparatus by executing each of said plurality of instructions (Ghercioiu, pg. 1, par. 7);

display means for displaying an image (Ghercioiu, pg. 2, par. 12);

first display control means based on the symbol data corresponding to the instruction executed by said control means for causing the symbol corresponding to said executed instruction to be displayed in a first display region in said display means (Ghercioiu, pg. 1, par. 7);

video signal input means for receiving an input of video data generated based on a picked-up image of said control target equipment (Ghercioiu, pg. 7, par. 80);

video data storing means for storing said video data (Ghercioiu, pg. 7, par. 80);

detection means for detecting designation of the symbol displayed in said first display region (Ghercioiu, pg. 14, par. 233).

Ghercioiu however fails to teach a relation means for relating the symbol data corresponding to the instruction executed by said control means to the video data stored in said video data storing means; and second display control means responsive to detection of said designation for causing a moving image to be displayed in a second display region in said display means based on the video data related to the symbol data corresponding to the symbol displayed in said first display region.

Hasako discloses a display apparatus, analogous in art with that of Ghercioiu, comprising a relation means for relating the symbol data corresponding to the instruction executed by said control means to the video data stored in said video data storing means (Hasako, pg. 1, par. 15-17; pg. 17, par. 376);

and second display control means responsive to detection of said designation for causing a moving image to be displayed in a second display region in said display means based on the video data related to the symbol data corresponding to the symbol displayed in said first display region (Hasako, Fig. 13a; pg. 17, par. 376).

At the time the invention was made it would have been obvious to one having ordinary skill in the art to modify the display apparatus of Ghercioiu such that there is a relation means for relating the symbol data corresponding to the

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instruction executed by said control means to the video data stored in said video data storing means; and second display control means responsive to detection of said designation for causing a moving image to be displayed in a second display region in said display means based on the video data related to the symbol data corresponding to the symbol displayed in said first display region, as taught by Hasako.

As one of ordinary skill in the art would appreciate, the suggestion/motivation for doing so would have been to carry out inspection and troubleshooting of a process in sync with a displayed video image of the process.

Claim 13 is rejected as being dependent on rejected claim 12 as discussed above and further, Ghercioiu fails to teach further comprising timer means for measuring a time, wherein said relation means relates the symbol data corresponding to the symbol displayed in said first display region to the video data input through said video signal input means based on the time measured by said timer means.

Hasako discloses a display apparatus, analogous in art with that of Ghercioiu, further comprising timer means for measuring a time, wherein said relation means relates the symbol data corresponding to the symbol displayed in said first display region to the video data input through said video signal input means based on the time measured by said timer means (Hasako, pg. 17, par. 397-399).

At the time the invention was made it would have been obvious to one having ordinary skill in the art to modify the display apparatus of Ghercioiu such that it further comprises timer means for measuring a time, wherein said relation means relates the symbol data corresponding to the symbol displayed in said first display region to the video data input through said video signal input means based on the time measured by said timer means, as taught by Hasako.

As one of ordinary skill in the art would appreciate, the suggestion/motivation for doing so would have been to carry out inspection and troubleshooting of a process in sync with a displayed video image of the process.

Claim 14 is rejected as being dependent on rejected claim 13 as discussed above and further, Ghercioiu as modified by Hasako teaches further comprising: state signal input means for receiving an input of a state signal indicating a state of said control target equipment (Ghercioiu, pg. 14, par. 233);

log generation means for generating log information representing history of an operation of said control target equipment based on said time and said state signal (Ghercioiu, pg. 14, par. 233);

and log storing means for storing said log information (Ghercioiu, pg. 14, par. 233),

wherein said relation means relates the symbol data corresponding to the symbol displayed in said first display region to said log information (Hasako, pg. 17, par. 397-399).

Claim 15 is rejected as being dependent on rejected claim 14 as discussed above and further, Ghercioiu modified by Hasaka teaches wherein said state signal input means receives an input of a signal indicating an abnormality in said control target equipment (Ghercioiu, pg. 14, par. 233);

said log generation means generates log information indicating an abnormality in said control target equipment when said signal indicating an abnormality is input (Ghercioiu, pg. 14, par. 233);

said relation means relates a time at which said log information indicating an abnormality is generated to said log information indicating an abnormality for storage in said log storing means (Hasako, Fig. 13a; pg. 17, par. 376),

and said first display control means causes the symbol to be displayed in said first display region by making a difference between an output form of the symbol data for displaying the symbol corresponding said log information indicating an abnormality and an output form of the symbol data for displaying the symbol corresponding to a normal state in said control target equipment, so that a first display manner in said display means of the symbol corresponding to said log information indicating an abnormality differs from a second display

manner in said display means of the symbol corresponding to said normal state (Ghercioiu, pg. 14, par. 233).

Claim 22 is rejected as being dependent on rejected claim 12 as discussed above and further, Ghercioiu modified by Hasaka teaches wherein said video signal input means receives an input of each video data generated based on an image of said control target equipment picked up by each of a plurality of image picking-up means (Ghercioiu, pg. 7, par. 80),

said relation means relates each symbol data corresponding to each of a plurality of instructions executed by said control means to said each video data and said second display control means causes each moving image to be displayed in said second display region based on said each video data (Hasako, pg. 1, par. 15-17; pg. 17, par. 376).

In reference to claim 23, Ghercioiu teaches a program product causing a computer to function as a display apparatus (Ghercioiu, pg. 14, par. 233),

said program product causing said computer to execute the steps of: reading a control program having a plurality of instructions and each symbol data for displaying a symbol related to each of said plurality of instructions from storage means for storing data (Ghercioiu, pg. 14, par. 233),

controlling control target equipment electrically connected to said computer by executing each of said plurality of instructions (Ghercioiu, pg. 1, par. 7);

based on the symbol data corresponding to the instruction executed at said controlling step (Ghercioiu, pg. 1, par. 7);

causing the symbol corresponding to said executed instruction to be displayed in a first display region in display means for displaying an image (Ghercioiu, pg. 1, par. 7);

receiving an input of video data generated based on a picked-up image of said control target equipment (Ghercioiu, pg. 7, par. 80);

storing said video data in said storage means (Ghercioiu, pg. 7, par. 80);

detecting designation of the symbol displayed in said first display means (Ghercioiu, pg. 14, par. 233);

Ghercioiu however fails to teach relating the symbol data corresponding to said executed instruction to said video data; and in response to detection of said designation, causing a moving image to be displayed in a second display region in said display means based on the video data related to the symbol data corresponding to the symbol displayed in said first display region.

Hasako discloses a display apparatus, analogous in art with that of Ghercioiu, relating the symbol data corresponding to said executed instruction to said video data (Hasako, pg. 1, par. 15-17; pg. 17, par. 376);

and in response to detection of said designation, causing a moving image to be displayed in a second display region in said display means based on the video data related to the symbol data corresponding to the symbol displayed in said first display region (Hasako, Fig. 13a; pg. 17, par. 376).

At the time the invention was made it would have been obvious to one having ordinary skill in the art to modify the display apparatus of Ghercioiu such that there is a relation means for relating the symbol data corresponding to the instruction executed by said control means to the video data stored in said video data storing means; and second display control means responsive to detection of said designation for causing a moving image to be displayed in a second display region in said display means based on the video data related to the symbol data corresponding to the symbol displayed in said first display region, as taught by Hasako.

As one of ordinary skill in the art would appreciate, the suggestion/motivation for doing so would have been to carry out inspection and troubleshooting of a process in sync with a displayed video image of the process.

Claim 24 is rejected as being dependent on rejected claim 23 as discussed above and further, Ghercioiu teaches a recording medium storing the program product according to claim 23 (Ghercioiu, pg. 14, par. 233).

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3. Claims 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ghercioiu et al. (US 2004/0010734) in view of Hasako et al. (US 2003/0093715) and further in view of Keele et al. (US 2005/0086695).

Claim 16 is rejected as being dependent on rejected claim 15 as discussed above and further, Ghercioiu teaches wherein said detection means detects designation of the symbol displayed in said first display manner (Ghercioiu, pg. 14, par. 233).

Ghercioiu however fails to teach said display apparatus further comprising: reading means for reading time corresponding to said log information indicating an abnormality from said log storing means based on detection of said designation.

Hasako discloses a display apparatus, analogous in art with that of Ghercioiu, further comprising: reading means for reading time corresponding to said log information indicating an abnormality from said log storing means based on detection of said designation (Hasako, Fig. 13a; pg. 17, par. 376).

At the time the invention was made it would have been obvious to one having ordinary skill in the art to modify the display apparatus of Ghercioiu such that there is a reading means for reading time corresponding to said log information indicating an abnormality from said log storing means based on detection of said designation, as taught by Hasako.

As one of ordinary skill in the art would appreciate, the suggestion/motivation for doing so would have been to carry out inspection and troubleshooting of a process in sync with a displayed video image of the process.

Ghercioiu modified by Hasako however fails to teach a reproduction means for reading video data corresponding to a predetermined period of time from said read time, wherein said second display control means causes a moving image to be displayed in said second display region based on the video data read by said reproduction means.

Keele discloses a display system, analogous in art with that of Ghercioiu modified by Hasako, with a reproduction means for reading video data corresponding to a predetermined period of time from said read time (Keele, pg. 10, par. 143),

wherein said second display control means causes a moving image to be displayed in said second display region based on the video data read by said reproduction means (Keele, Abstract; pg. 10, par. 143).

At the time the invention was made it would have been obvious to one of ordinary skill in the art to combine the display apparatus of Ghercioiu modified by Hasako such that there is a reproduction means for reading video data corresponding to a predetermined period of time from said read time, wherein said second display control means causes a moving image to be displayed in said second display region based on the video data read by said reproduction means, as taught by Keele.

As one of ordinary skill in the art would appreciate, the suggestion/motivation for doing so would have been to enable the user to focus in on a particular time period for analysis or troubleshooting.

Claim 17 is rejected as being dependent on rejected claim 16 as discussed above and further, Ghercioiu modified by Keele however fails to teach wherein said display means displays said first display region and said second display region in the same screen.

Hasako discloses a display apparatus, analogous in art with that of Ghercioiu modified by Keele wherein said display means displays said first display region and said second display region in the same screen (Hasako, Fig. 13a.).

At the time the invention was made it would have been obvious to one having ordinary skill in the art to modify the display apparatus of Ghercioiu modified by Keele wherein said display means displays said first display region and said second display region in the same screen, as taught by Hasako.

As one of ordinary skill in the art would appreciate, the suggestion/motivation for doing so would have been to carry out inspection and troubleshooting of a process in sync with a displayed video image of the process.

Claim 18 is rejected as being dependent on rejected claim 15 as discussed above and further Ghercioiu modified by Hasako teaches wherein said

detection means detects designation of the symbol displayed in said first display manner (Ghercioiu, pg. 14, par. 233),

said display apparatus further comprising: reading means for reading time corresponding to said log information indicating an abnormality from said log storing means based on detection of said designation (Ghercioiu, pg. 14, par. 233).

Ghercioiu modified by Hasako however fails to teach a reproduction means for reading video data corresponding to a period of time from predetermined time previous to said time to predetermined time subsequent to said time, wherein said second display control means causes a moving image to be displayed in said second display region based on the video data read by said reproduction means.

Keele discloses a display system, analogous in art with that of Ghercioiu modified by Hasako, such that there is a reproduction means for reading video data corresponding to a period of time from predetermined time previous to said time to predetermined time subsequent to said time (Keele, pg. 10, par. 143),

wherein said second display control means causes a moving image to be displayed in said second display region based on the video data read by said reproduction means (Keele, Abstract; pg. 10, par. 143).

At the time the invention was made it would have been obvious to one having ordinary skill in the art to modify the display apparatus of Ghercioiu modified by Keele such that there is a reproduction means for reading video data

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corresponding to a period of time from predetermined time previous to said time to predetermined time subsequent to said time, wherein said second display control means causes a moving image to be displayed in said second display region based on the video data read by said reproduction means, as taught by Keele.

As one of ordinary skill in the art would appreciate, the suggestion/motivation for doing so would have been to enable the user to focus in on a particular time period for analysis or troubleshooting.

Claim 19 is rejected as being dependent on rejected claim 18 as discussed above and further, Ghercioiu modified by Keele however fails to teach wherein said display means displays said first display region and said second display region in the same screen.

Hasako discloses a display apparatus, analogous in art with that of Ghercioiu modified by Keele wherein said display means displays said first display region and said second display region in the same screen (Hasako, Fig. 13a.).

At the time the invention was made it would have been obvious to one having ordinary skill in the art to modify the display apparatus of Ghercioiu modified by Keele wherein said display means displays said first display region and said second display region in the same screen, as taught by Hasako.

As one of ordinary skill in the art would appreciate, the suggestion/motivation for doing so would have been to carry out inspection and troubleshooting of a process in sync with a displayed video image of the process.

Claim 20 is rejected as being dependent on rejected claim 15 as discussed above and further, Ghercioiu modified by Hasaka teaches wherein said first display control means controls said display means such that a plurality of symbols are displayed in said first display region in said first display manner (Ghercioiu, pg. 14, par. 233);

said detection means detects designation of any symbol among said plurality of symbols (Ghercioiu, pg. 14, par. 233),

and said second display control means (Hasako, Fig. 13a; pg. 17, par. 376),

includes time data reading means for reading each time corresponding to each of said plurality of symbols from said log storing means (Ghercioiu, pg. 14, par. 233).

Ghercioiu as modified by Hasaka above does not expressly disclose video data reading means for reading video data corresponding to a predetermined period of time from said read each time for each of said plurality of symbols from said log storing means.

However, Hasako additionally teaches a display apparatus, analogous in art with that of Ghercioiu such that there is a reading means for reading video

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data corresponding to a predetermined period of time from said read each time for each of said plurality of symbols from said log storing means (Hasako, pg. 1, par. 15-17; pg. 17, par. 376).

At the time the invention was made it would have been obvious to one having ordinary skill in the art to further modify the display apparatus of Ghercioiu in view of Hasako wherein there is a reading means for reading video data corresponding to a predetermined period of time from said read each time for each of said plurality of symbols from said log storing means, as taught by Hasako.

As one of ordinary skill in the art would appreciate, the suggestion/motivation for doing so would have been to carry out inspection and troubleshooting of a process in sync with a displayed video image of the process.

Ghercioiu as modified by Hasako does not expressly disclose a reproduction control means for causing a moving image to be displayed in said second display region in time order or backward in time from said time corresponding to any symbol of which said designation is detected based on said read video data.

Keele discloses a display system, analogous in art with that of Ghercioiu modified by Hasako, such that there is a reproduction control means for causing a moving image to be displayed in said second display region in time order or backward in time from said time corresponding to any symbol of which said designation is detected based on said read video data (Keele, pg. 10, par. 143).

At the time the invention was made it would have been obvious to one having ordinary skill in the art to modify the display apparatus of Ghercioiu modified by Hasako such that there is a reproduction means for reading video data corresponding to a period of time from predetermined time previous to said time to predetermined time subsequent to said time, as taught by Keele.

As one of ordinary skill in the art would appreciate, the suggestion/motivation for doing so would have been to enable the user to focus in on a particular time period for analysis or troubleshooting.

Claim 21 is rejected as being dependent on rejected claim 20 as discussed above and further, Ghercioiu as modified above by Hasako and further in view of Keele does not expressly disclose wherein said display means displays said first display region and said second display region in the same screen.

However, Hasako additionally teaches a display apparatus, analogous in art with that of Ghercioiu in view of Keele wherein said display means displays said first display region and said second display region in the same screen (Hasako, Fig. 13a.).

At the time the invention was made it would have been obvious to one having ordinary skill in the art to modify the display apparatus of Ghercioiu in view of Keele wherein said display means displays said first display region and said second display region in the same screen, as taught by Hasako.

As one of ordinary skill in the art would appreciate, the suggestion/motivation for doing so would have been to carry out inspection and troubleshooting of a process in sync with a displayed video image of the process.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHARLES HICKS whose telephone number is 571-270-7535. The examiner can normally be reached on Monday-Thursday from 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz, can be reached on 571-272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Sumati Lefkowitz/
Supervisory Patent Examiner, Art Unit 2629